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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

Vol. 12, No. 2

MARCH 16, 1988

FEBRUARY 1988

SUMMARY

After January's unusually large year-to-year jump in deliveries, February's 2.5 percent, 417 thousand B/D increase was closer to estimated trends in actual consumption. The main contributors to the increase were motor gasoline, up 2.6 percent from last February, and the "other oils" category, continuing its strong growth with an increase of over 5 percent.

Although both distillate and kerosine jet fuel deliveries in February were less than estimated consumption trends indicate, January deliveries of both products had been exceptionally strong. Distillates were about even with last February, while kerosine jet fuel deliveries actually fell year to year. For the second month in a row, residual fuel oil deliveries rose over year-ago levels, though only by 2 percent; this contrasts with the annual decline for 1987 of nearly 12 percent.

Crude oil production continues to show declines, decreasing 1.8 percent from last February; in the past two years it has fallen 11 percent as the net result of the lower 48's 1.1 million B/D, 16 percent decline and a 150 thousand B/D increase for Alaska. Petroleum imports receded slightly during February to 6.7 million B/D from January's 7 million B/D. However, the slippage was almost entirely in products, including a decline for distillates in response to a moderating of deliveries from the previous month and the approach of the end of the heating season. Total imports so far this year have averaged one third higher than those of two years ago.

The moderation in distillate deliveries also led to a lessening in refinery emphasis on output of that product—but production of distillate still rose over last February by over 4 percent. Total inventories declined by 17 million barrels during the month, about in line with the average February drop of the previous five years; distillate stocks' 15 million barrel decline was also close to the recent-year average.

PRODUCT SUPPLIED [1/]

Gasoline

ADJUSTED GROWTH CONTINUES AT ABOUT 2 PERCENT.

Gasoline deliveries rose 2.6 percent or 177 thousand B/D in February, following an over 4 percent jump for January. January's increase, however, was partly due to below-trend deliveries for January of the previous year. Once adjusted for this, the year-to-date increase in gasoline deliveries matches estimated consumption growth of roughly 2 percent and continues the rate of increase experienced in 1987.

Continued improvement in the average fuel efficiency of the vehicle fleet has held the annual growth rate of motor fuel consumption (including diesel) between 2.2 and 3.2 percent per year over the past five years. However, miles traveled have continued to grow at almost the same 3.8 percent annual rate as the economy as a whole. On a per capita basis, the 20 percent rise in total miles traveled since 1982 works out to a 14 percent increase per person, or nearly 1,000 miles.

It is true that the proportion of the population of driving age has increased over the period and the labor force participation rate has risen as well, both contributing to the increase in travel per capita. But even on this basis, miles per driving-age population have risen 13 percent in five years, and miles per civilian employed have risen 6 percent. At least part of the explanation for the growth in miles traveled lies in the dramatic decline in fuel costs per mile resulting from the combined effects of improved fuel efficiency and lower fuel prices—adjusted for inflation, travel costs are only about half what they were in 1982.

Distillates

GROWTH RECEDES FROM JANUARY'S HIGH LEVEL.

February's nearly flat performance for distillate deliveries versus a year ago falls short of what other indicators of consumption show. However, in view of January's unusually strong, 13 percent surge, it is likely that distributors and end users in February relied to a greater extent than usual on inventories acquired earlier.

The nation as a whole averaged about 12 percent colder than last February, but weather in New England and the Mid-Atlantic states, major heating-oil-consuming regions, were warmer than last February; thus, the overall effect of weather on the year-to-year comparison amounted to only 10 to 15 thousand B/D for the month.

API ESTIMATES

	FEBRUARY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.1	2.5	17.3	4.8
Crude oil production[2/]	8.2	(1.8)	8.2	(2.8)
Total imports[3/]	6.7	14.8	6.8	14.6
Stocks (million bbl)[3/]	1,026	(2.0)	na	na

Strength in the transportation sector is apparently continuing, with trucking traffic up about 7 percent in January, (latest available) and rail car loadings up 4 percent for February on the continued strength of grain shipments. Together, these added an estimated 80-100 thousand B/D to February's consumption levels over a year ago. With little net change in the remaining sectors, we estimate that February's underlying growth in distillate consumption averaged about 2.5 percent excluding the effect of weather.

Residual Fuel Oil

YEAR-TO-YEAR RISE REPEATED IN FEBRUARY.

Residual fuel oil deliveries were estimated at 1,500 thousand B/D in February, down 2.1 percent from January but up 2.0 percent from February 1987. Despite the unusual factors that accounted for the high January deliveries, the decline from last month was less than half of the February norm. As a result, February deliveries, like those of January, continue to exceed last year's levels. The size of the year-to-year increase, however, was significantly smaller than that for January, suggesting a moderation of the unusual conditions at the beginning of the year. In general, delivery patterns appear to reflect the competitive nature of the fuel in the electric utility and industrial markets.

On average, the electric utilities sector is believed to have consumed heavy fuel oil at rates perhaps 5-10 percent higher than those of last year. While some of this was due to colder weather, residual fuel oil continued to be price-competitive in some regions, apparently delaying part of the seasonal switch back to natural gas. Weather-related factors are also believed to have contributed to year-to-year increases in commercial and institutional deliveries of fuel oil.

Deliveries of residual fuel oil to industrial markets, however, are believed to have declined slightly from last month's levels but remain slightly above levels of a year ago. The loss of the fuel's January penetration in southern California due to natural gas curtailments is regarded as the most important factor behind the month-to-month contraction. Moreover, fuel oil which was burned in January as a result of the high cost of gas is thought to have lost some of its competitive edge in some industrial plants with dual-fired capability as a result of the 15-20 percent decline in spot gas prices.

Kerosine Jet Fuel

AFTER A SURGE IN JANUARY, DELIVERIES FALL.

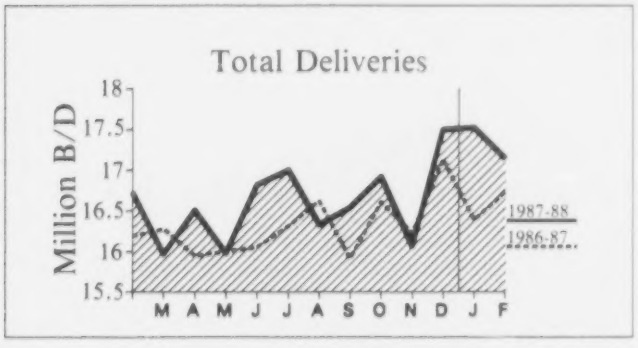
Deliveries of kerosine jet fuel slowed from January's extremely high levels—to the point of declining 3.5 percent from last February. In view of January's jump in deliveries of over 20 percent, the decline was perhaps not too surprising. Apparently, a large portion of January's surge in buying was for secondary inventories (in addition to demand for blending purposes in distillate markets), which were drawn upon during February.

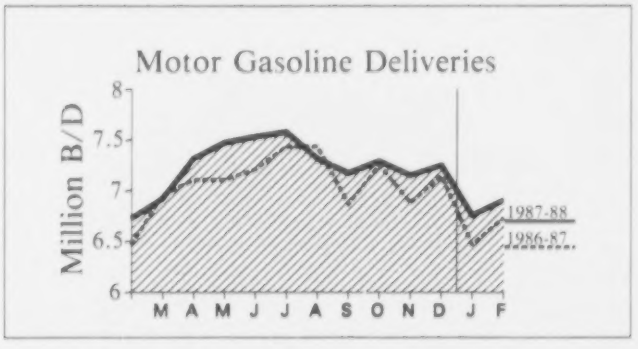
Air traffic continues to rise, but at a less rapid pace than for much of last year. January's increase in domestic seat-miles amounted to less than 3 percent; without the continued strong showing for international traffic, up 18 percent, total passenger traffic would have risen significantly less than the 5.5 percent actually achieved. Year-to-year gains in air freight averaging over 15 percent in recent months have also added to overall air traffic growth.

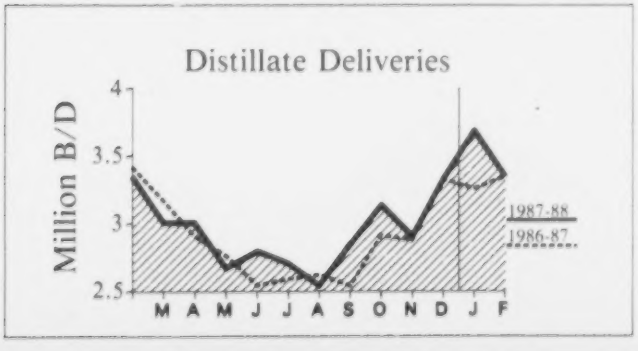
Other Oils

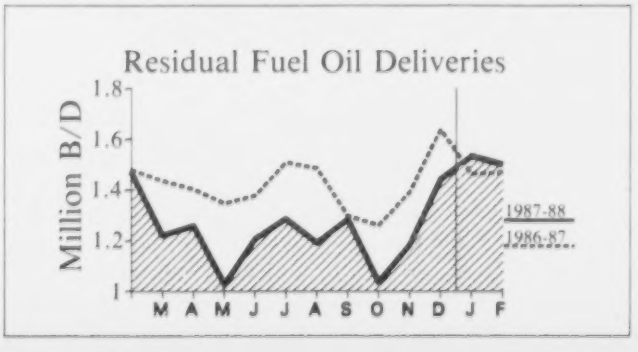
STRONG GROWTH MAINTAINED.

"Other oils" deliveries for February are estimated to be 4,224 thousand B/D, down 1.3 percent from January. Despite the spike in January deliveries caused by the cold weather, this decline was less than half the February seasonal norm. As a result, February deliveries were a robust 5.5 percent higher than in February 1987.









The petrochemical feedstock market continued to show significant strength as well as on-going shifts in relative demand between competing feedstocks. Ethane deliveries, driven by strong olefin demand, are continuing to show apparent increases. The recent rise in ethane's wholesale price reflects substantial drawdowns in inventories, which have reached historical lows. Propylene, still the dominant feedstock, is continuing to lose ground to naphtha and gasoil in the ethylene market due to the continuing decline in propylene's co-product values, likely resulting in a moderation of the increase in deliveries of that feedstock. Nonetheless, we believe that petrochemical feedstock demand, driven primarily by export-led demand for the finished product slates, continues to account for the bulk of the year-to-year increase in other oils deliveries.

In contrast to the January pattern, asphalt and road oil deliveries may have made a smart recovery in February, especially in the latter part of the month. Refinery gas production and consumption levels are believed to have been slightly less than last month's levels, but less than the normal monthly decline of more than 4 percent for this product. As a result, a year-to-year deliveries increase, due to correspondingly higher gasoline production levels, likely contributed to the continued high level of "other oils" deliveries.

SUPPLY [1/]

Production

ALASKA'S SHARE KEEPS RISING.

Alaska's role as supplier of one fourth of domestic crude oil production is becoming firmly established as lower 48 output continues to decline, as it did in February. Since November, production in Alaska has been typically running at 2 million B/D or more; February's production averaged nearly 2.1 million B/D. Lower 48 production, however, slipped to 6.1 million B/D for the month, more than 16 percent or 1.1 million B/D below the level of only two years ago.

The increase in Alaska's share, though accelerated by the dramatic falloff in lower 48 production since the major price decline of 1986, has been taking place for the past decade. The beginning of production at Prudhoe Bay in late 1977 immediately gave Alaska a 14 percent share for the following year. Since that time, that state's share has been moving steadily upward, even in the 1981-1985 period when, following crude oil price decontrol, lower 48 production held steady and even increased.

The process by which Alaska has reached this level of production has been a long one, reflecting the lead times needed to explore and develop petroleum resources in frontier regions. The Prudhoe Bay field, for example, had been discovered nearly a decade before production began. Kuparuk, the second largest field, was discovered in 1969 but production did not begin until late 1981. Endicott, which began production last October and is now the third largest field, also took nearly a decade after discovery to complete exploration, permitting, and development work.

Imports

UP BY A THIRD SO FAR THIS YEAR VERSUS EARLY 1986.

Imports, which in January had been even with the 7 million B/D average of the second half of 1987, decreased to 6.7 million B/D in February. However, the decline was almost entirely due to a decrease in product imports, with crude oil imports continuing in the 4.5-4.6 million B/D range of the past several months. Over the longer term, rising consumption and falling production have increased imports so far this year by one third since two years ago.

Distillate imports, in particular, paralleling the pattern in deliveries, slipped by 100 thousand B/D from January's above-average level to 228 thousand B/D, essentially the same as for February a year ago. Imports of motor gasoline and components for February amounted to 347 thousand B/D, down slightly from last February. Residual fuel oil imports, however, in a break from the pattern of most of last year, showed a year-to-year increase of 93 thousand B/D or over 15 percent.

Refinery Operations

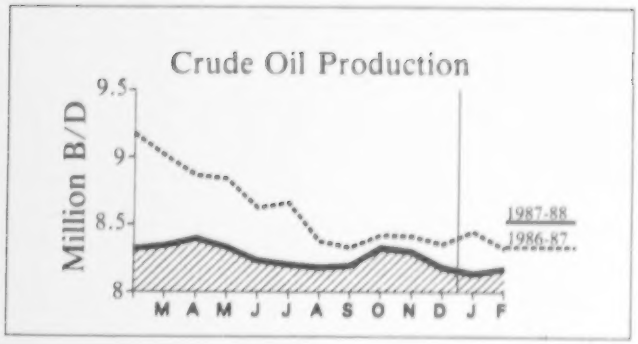
DISTILLATE OUTPUT DOWN FROM JANUARY, UP FROM LAST YEAR.

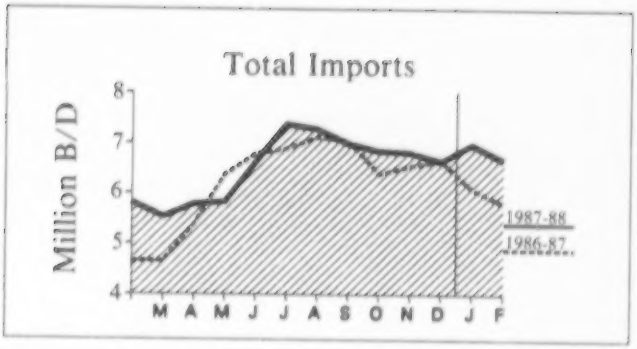
After running throughout the winter months at over 83 percent utilization, refinery activity slackened slightly in February to 81.9 percent as the end of the major part of the heating season approached. Distillate yields in February fell by about 2 percentage points from January's strong level, but at close to 21 percent of input to distillation units, were still in line with the average February yields of the past several years. Even with the reduced emphasis on distillate, production of this product exceeded last February's level by over 4 percent. Gasoline production was also up by almost 5 percent from a year ago, while residual fuel oil production jumped over 19 percent in a continuation of January's high level of output for this product.

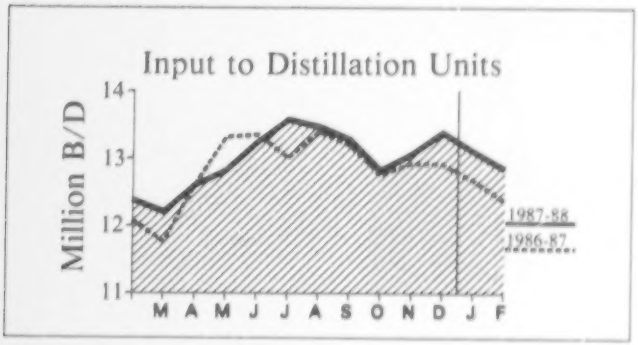
Inventories

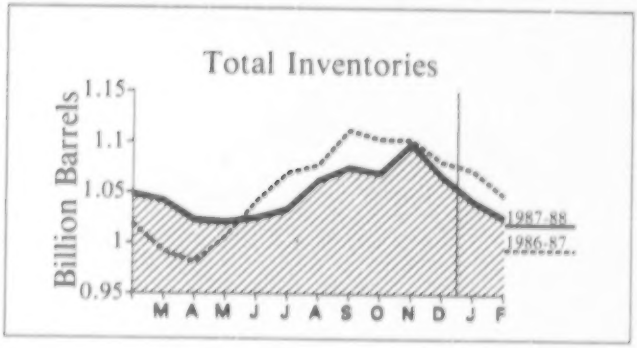
TOTAL STOCKS FALL 17 MMB, MAINLY DUE TO DISTILLATES.

Total stocks fell 17 million barrels during February, mostly because of distillates' 15 million barrel decrease—both declines being typical for the month. Motor gasoline inventories were essentially unchanged. Crude oil stocks, after falling by 24 million barrels during December and January to levels more typical of the past several years, ended the month only slightly above January's closing level.









1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 544 million barrels as of February 29, 1988).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	FEBRUARY			YEAR-TO-DATE		
	1988[1]	1987[2]	% Change	1988[3R]	1987[2]	% Change
Products Supplied:						
Total motor gasoline	6,903	6,726	2.6	6,825	6,591	3.6
Finished leaded motor gasoline*	1,380	1,735	(20.5)	1,331	1,714	(22.3)
Finished unleaded motor gasoline*	5,523	4,991	10.7	5,494	4,877	12.7
Naphtha-jet	226	219	3.2	203	191	6.3
Kerosine-jet	1,180	1,223	(3.5)	1,292	1,185	9.0
Distillate fuel oil	3,350	3,347	0.1	3,524	3,301	6.8
Residual fuel oil	1,500	1,470	2.0	1,517	1,466	3.5
All other oils[4]	4,224	4,005	5.5	4,252	4,063	4.7
Reclassified[5]	- 245	- 269	(8.9)	- 278	- 254	9.4
Total domestic products supplied	17,138	16,721	2.5	17,335	16,543	4.8
Exports	900	991	(9.2)	791	905	(12.6)
Total products supplied	18,038	17,712	1.8	18,126	17,448	3.9
Supply:						
Domestic production:						
Crude oil[6]	8,168	8,320	(1.8)	8,150	8,387	(2.8)
Natural gas liquids	1,623	1,625	(0.1)	1,643	1,607	2.2
Other supply[7]	1,001	1,084	(7.7)	839	926	(9.4)
Total domestic supply	10,792	11,029	(2.1)	10,632	10,920	(2.6)
Imports:						
Crude oil, total	4,560 10/	3,852 10/	18.4	4,580 10/	4,083 10/	12.2
Canadian	657	537	22.3	627	553	13.4
Other	3,903	3,315	17.7	3,953	3,530	12.0
Products, total	2,103	1,953	7.7	2,243	1,873	19.8
Residual fuel oil	705	612	15.2	678	641	5.8
Other	1,398	1,341	4.3	1,565	1,232	27.0
Total imports	6,663	5,805	14.8	6,823	5,956	14.6
Total supply	17,455	16,834	3.7	17,455	16,876	3.4
Stock change, all oils	- 583	- 878	XXXX	- 671	- 572	XXXX
Refinery Operations						
Input to crude oil distillation units	12,850	12,377	3.8	12,983	12,532	3.6
Operable capacity	15,697	15,600	0.6	15,697	15,620	0.5
Refinery utilization (%)[8]	81.9%	79.3%	3.3	82.7%	80.2%	3.1
Crude oil runs	12,749	12,296	3.7	12,861	12,440	3.4

Stocks (millions bbls.)	1988		1987[2]	% Change from	
	Feb. 29[9]	Jan. 31[9]	Feb. 28	Previous Month	Year Ago
Crude oil 10/	340.7	338.7r/	332.0	0.6	2.6
Unfinished oils	96.8	95.5r/	102.7	1.4	(5.7)
Total motor gasoline**	238.5	237.9r/	250.7	0.3	(4.9)
Finished leaded motor gasoline*	51.4	55.1	68.9	(6.7)	(25.4)
Finished unleaded motor gasoline*	148.4	143.7r/	138.2	3.3	7.4
Naphtha-jet	6.4	7.4	6.7	(13.5)	(4.5)
Kerosine-jet	37.4	38.4	41.2	(2.6)	(9.2)
Distillate fuel oil	109.7	124.6	123.5	(12.0)	(11.2)
Residual fuel oil	44.2	45.1r/	38.1	(2.0)	16.0
All other oils	152.2	155.2r/	152.3	(1.9)	(0.1)
Total all oils	1,025.9	1,042.8r/	1,047.2	(1.6)	(2.0)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum [illegible] nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline [illegible] or [illegible].